CITY OF CHULA VISTA

CLIMATE ACTION PLAN
Implementation Progress Report
May 2013

SUMMARY

Since 2000, Chula Vista has been implementing a "Climate Action Plan" to address the threat of climate change to the local community. Over the past 3 years, this original plan has been revised to incorporate new climate mitigation (2008) and adaptation (2011) measures to strengthen the City's climate action efforts and to facilitate the numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. Based on available funding, staff has been implementing of the 18 climate-related actions and their 57 associated components. To date, approximately 96% of the components have been successfully completed, are being implemented on an ongoing basis, or are being actively pursued. Since the last progress report, one component, which was previously on-hold, has begun to be implemented.

BACKGROUND

Since the early 1990s, Chula Vista has been engaged in multiple climate change forums including the United Nations Framework Convention on Climate Change, the ICLEI Cities for Climate Protection campaign, the California Climate Action Registry, and the U.S. Conference of Mayor's Climate Protection Agreement and has committed to reduce its greenhouse gas (GHG) emissions 20% below 1990 levels. To accomplish this GHG reduction or climate "mitigation" goal, the City adopted a Carbon Dioxide (CO2) Reduction Plan in 2000, which outlined steps for Chula Vista to reduce energy and fuel use at municipal facilities and throughout the community. In 2008, seven new climate mitigation measures were adopted by City Council to augment past efforts by improving energy and water efficiency, expanding renewable energy systems, converting to more fuel efficient and alternative fuel vehicles, and designing transit-friendly, walkable communities. To complement these climate mitigation actions, City Council adopted eleven strategies in May 2011 to reduce Chula Vista's vulnerability to expected local climate change impacts (known as climate "adaptation"). These strategies addressed expected impacts such as hotter and drier weather, diminished imported water supplies, more poor air quality/heat wave days, more frequent wildfires, shifts in habitat and species distribution, and increased rates of sea level rise. By minimizing the risks associated with climate impacts now, future costs and public health concerns can be avoided and/or minimized.

IMPLEMENTATION PROGRESS

The following report outlines the implementation progress for the 7 climate mitigation measures and the 11 climate adaptation strategies. In addition to background information and next steps, staff has highlighted whether the implementation is:

Completed – All required implementation steps have been completed

Ongoing – All required initial steps have been completed, but component is still actively being implemented

In Progress – Implementation steps are still being developed and pursued based on the original implementation plan

On-Hold **–** Implementation has not proceeded due to a programmatic barrier (such as funding)

As directed by City Council, staff has been implementing the 18 climate-related actions and their 57 associated components based on available funding. Out of the 27 mitigation-related components, 75% and 22% have been successfully completed/ongoing or are still being actively pursued, respectively. Only the H Street Corridor Study (under Mitigation Measure #6) is currently "On-Hold" due to the dissolution of the City's Redevelopment Agency. Out of the 30 adaptation-related components, 54% and 43% have been successfully completed/ongoing or are still being actively pursued, respectively. Only one component still remains "On-Hold" (compared to two during the last progress report) under Adaptation Strategy #9.

Staff continues to proactively seek new partnerships and funding resources to support full implementation. Since the last progress report, Chula Vista was awarded $3.1 million for its Local Government Partnership (LGP) program with San Diego Gas & Electric (SDG&E) and the California Public Utilities Commission. The new LGP funding will further help integrate energy efficiency retrofits and policies into municipal operations and community services. The City also was awarded a technical assistance grant through the US Environmental Protection Agency's Smart Growth initiative. The federal assistance will allow the City and local builders to better understand tools and concepts for more efficient, sustainable community development. The City continues to work with regional partners on climate change issues through the new San Diego Regional Climate Collaborative. In March, the Climate Collaborative sponsored a workshop for municipal representatives, financial institutions, insurance companies, and business leaders to discuss opportunities to increase the region's climate change readiness.

There are also a variety of new Climate Action Plan initiatives that will launch in the near term. By the end of summer, City staff will be presenting a proposed Property-Assessed Clean Energy (PACE) program for residential buildings to City Council for consideration. PACE allows homeowners to easily finance energy and water improvements and repay the debt service through their property tax payments. Staff is also working to expand car sharing programs into the jurisdiction. Car sharing helps to reduce vehicle miles traveled, while still providing convenient access for residents and visitors to a car for trips that can't be done by walking, biking, or public transit. Finally, the City will be one of the first jurisdictions in the nation to utilize a new greenhouse gas (GHG) accounting protocol to conduct its Calendar Year 2012 emissions inventory. The new protocol, which was developed by ICLEI and approved by the State of California, will allow the City to better quantify its emission sources and will inform a stakeholder-driven update to the Chula Vista Climate Action Plan in 2014.

CLIMATE MITIGATION MEASURES

The following (7) measures are designed to reduce greenhouse gas or "carbon" emissions from municipal operations and the broader Chula Vista community. The measures complement one another as well as state and federal climate mitigation initiatives.

MITIGATION MEASURE #1
CLEAN VEHICLE REPLACEMENT POLICY FOR CITY FLEET

Overview

Measure #1 directs the City to require that 100% of the replacement vehicles purchased for the municipal fleet be high efficiency (hybrid) or alternative fuel vehicles (AFVs). However, factors such as the appropriateness for the vehicle task, fueling infrastructure, petroleum displacement, and the overall cost and environmental benefit must be considered prior to purchasing each replacement vehicle.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE MITIGATION MEASURE #1: 100% City-Fleet Replacement with AFVs	1	Design and construction of a 12,000-gallon biodiesel tank at PWC	Completed	City's 128 diesel-fueled vehicles (or 23% of the total fleet) has been converted to biodiesel.
	2	Replace City's-fleet with AFVs or hybrids	Ongoing	Four additional CNG vehicles have been added to the fleet during FY13 making over 30% of the total motorized fleet alternative fuel or hybrid technology.

Next Steps

City vehicles will be replaced with hybrids or AFVs on an ongoing basis, as appropriate funding becomes available. By the end of Fiscal Year 2013, an additional fleet vehicle will be replaced with either hybrid or alternative fuel technologies. Future alternative vehicle efforts will also be informed by the recent Clean Transportation Energy Roadmap completed by SANDAG and the California Center for Sustainable Energy on behalf of the City of Chula Vista.

MITIGATION MEASURE #2
CLEAN VEHICLE REPLACEMENT FOR CITY-CONTRACTED FLEETS

Overview

Measure #2 directs staff to work with fleets under City authority to influence their expanded use of alternative fuels and high efficiency/alternative fuel vehicles (AFV) including electric, biodiesel, ethanol, hybrid, hydrogen, and compressed natural gas (CNG) based on appropriateness for vehicle task, fueling infrastructure, petroleum displacement, overall cost, and environmental benefit.

CLIMATE MITIGATION MEASURE #2: 100% City-Contracted Clean Fleets	#	COMPONENTS	STATUS	PROGRESS
	1	Convert Chula Vista Transit to alternative fuels and/or high efficiency vehicles	Completed	100% of Chula Vista Transit fleet have been converted to AFV.
	2	Convert Solid Waste Hauler to alternative fuels and/or high efficiency vehicles	Completed	100% of Allied Waste fleet have been converted to AFV.
	3	Convert Street Sweeper to alternative fuels and/or high efficiency vehicles	In Progress	Staff is working with the currently contracted vendor to investigate more affordable AFV technologies.
	4	Convert City-contracted Tow Trucks to alternative fuels and/or high efficiency vehicles	In Progress	A new RFP for Tow Truck service, which includes hybrid/AFV requirements, has been finalized and is scheduled to be released in the near future.
	5	Open publicly-available CNG dispenser at PWC	Completed	The new public CNG fuel station has dispensed over 66,600 gallons (equivalent) since October 2011.

Next Steps

The City continues to work with contractors and community partners to promote local alternative fuel use and infrastructure, which will be informed by the recent Clean Transportation Energy Roadmap completed by SANDAG and the California Center for Sustainable Energy. City staff is currently working with a private company to install 33 electric vehicle (EV) charging stations at municipal parking lots. The new EV chargers, which are being operated at no-cost to the City, will create a 4-fold increase in publicly-available alternative fuel infrastructure in Chula Vista.

MITIGATION MEASURE #3
BUSINESS ENERGY EVALUATIONS

Overview

The measure, as revised by City Council, states that businesses with storefronts or offices need to participate in a no-cost energy and water evaluation of their premises when a new business license is issued or once every 3-5 years for a renewed business license. The measure helps businesses identify efficiency opportunities at their facilities, access rebates and financing for efficiency improvements, and lower their monthly utility costs. Businesses are not required to implement any of the identified energy or water efficiency opportunities and are not required to complete evaluations for facility areas beyond their operational control (ex. whole-building systems operated and maintained by a Property Manager/Landlord).

CLIMATE MITIGATION MEASURE #3: Business Energy Evaluations	#	COMPONENTS	STATUS	PROGRESS
	1	Develop ordinance integrating energy & water evaluations into business licensing process	Completed	CVMC Chapter 20 was revised to include the evaluations, known as the "Free Resource & Energy Business Evaluations" (FREBE) program.
	2	Complete onsite energy & water evaluations for businsesses annually	Ongoing	To date, 226 on-site evaluations have been completed in 2013 to identify utility cost saving opportunities.
	3	Link businesses, who are interested in pursuing efficiency improvements, to available rebates, incentives, & financing	Ongoing	The year-long "Green Business Challenge" initiative resulted in 90% of participants improving their overall sustainability score and 38% implementing a new energy efficiency measure.
	4	Report to City Council on collected fines from non-compliant businesses	Ongoing	In 2012, only 3 businesses (out of 1,298) have been non-compliant and received a $15 fine on their 2013 license renewal.

Next Steps

The City's ongoing CLEAN Business Program, which complements the FREBE program by incentivizing and recognizing sustainability accomplishments, will be redesigned by June to incorporate some of the "lessons learned" from the successful Green Business Challenge initiative. In addition, targeted outreach to commercial property-owners about PACE financing will be conducted over the next 12 months to leverage the new energy efficiency funding tool.

MITIGATION MEASURE #4
GREEN BUILDING STANDARD

Overview

Measure #4 directed staff to adopt regulations mandating new and renovated residential and non-residential projects to incorporate early the requirements of the Housing and Community Development's California Green Building Standards Code (CalGreen) and to be more energy efficient than the 2008 Building Energy Efficiency Standards (Title 24) by a specific percentage. In addition, the measure directed staff to implement a green building awareness program and update/establish design and regulatory provisions that incorporate sustainable practices at a community-scale.

CLIMATE MITIGATION MEASURE #4: Green Building Standard	#	COMPONENTS	STATUS	PROGRESS
	1	Adopt a citywide Green Building Standard	Completed	In fall 2009, the City adopted the 2010 CA Green Building Standards Code early with local amendments. In fall 2011, a voluntary Green Building Plus program offering expedited permitting was launched.
	2	Adopt a citywide Enhanced Energy Efficiency Standard	Completed	In fall 2009, the City adopted an Enhanced Energy Efficiency Code. To date, 1,245 new residential and 22 new commercial units have complied with the new code.
	3	Launch a Green Building Awareness program for builders, permit applicants, & the general public	Ongoing	In the last year, the City has sponsored over 15 green building-related training and information sharing sessions for staff and the public.
	4	Develop design guidelines for sustainable development	Completed	In 2011, the City incorporated sustainability criteria into its updated Air Quality Improvement Plan Guidelines and Design Manual for large and small-scale development, respectively.

Next Steps

Chula Vista is partnering with other jurisdictions across California on a grant proposal under the Department of Energy's Rooftop Solar Challenge II program. If awarded, the funding would allow the City to expand implementation of permitting and financing "best practices" for rooftop solar photovoltaic systems in the community. City staff also plans to revise Chula Vista's Enhanced Energy Efficiency standard in 2014, as needed, when the new statewide Title-24 code is revised.

MITIGATION MEASURE #5
SOLAR & ENERGY EFFICIENCY CONVERSION PROGRAM

Overview

The "Solar & Energy Efficiency Conversion" program was recommended to help facilitate energy efficiency and renewable energy retrofits in the community and at municipal facilities. The community component, called the *Home Upgrade, Carbon Downgrade* program, is intended to help the average resident and small business overcome common institutional barriers, upfront capital costs, complicated application processes, and time constraints. The program also strives to promote local job creation and economic development by linking community participants with local contractors and vendors. Finally, Measure #5 included the implementation of a pre-wiring and pre-plumbing requirement for solar photovoltaic (PV) and solar hot water systems, respectively, in all new residential units.

CLIMATE MITIGATION MEASURE #5: Solar & Energy Efficiency Conversions	#	COMPONENTS	STATUS	PROGRESS
	1	Implement a Solar & Energy Efficiency Conversion program for the community	Ongoing	Through a formal RFP process, City staff is selecting a company to establish a Property-Assessed Clean Energy financing district for Chula Vista residents.
	2	Upgrade municipal facilities with energy efficiency & solar energy technologies	Ongoing	The City has begun installing over 3,900 LED street lights along arterial roadways, which will generate over 1.7 million kWh in annual energy savings.
	3	Link conversion program to local economic development	Ongoing	Through the residential PACE RFP process, the City is seeking respondents that include local hiring and purchasing in their program implementation plans.
	4	Adopt pre-wiring and pre-plumbing standards for solar pv & solar hot water, respectively	Completed	In 2009, the City adopted the "solar ready" ordinances. To date, over 1,500 new residential units have complied with the new code.

Next Steps

The City included additional funding for its *Home Upgrade, Carbon Downgrade* program in its 2013-2014 SDG&E Local Government Partnership proposal. Program components include streamlined permitting, workforce training, and home energy ratings in order to further facilitate energy retrofits in the community. Within the next three months, City staff will be presenting to City Council for review and consideration a residential-focused Property Assessed Clean Energy (PACE) program to help finance home retrofits.

MITIGATION MEASURE #6
SMART GROWTH AROUND TROLLEY STATIONS

Overview

Measure #6 is intended to accomplish the remaining planning groundwork necessary to support realization of the "Smart Growth" development densities and intensities envisioned in both the General Plan and the Urban Core Specific Plan (UCSP). Specifically, the measure's four components are focused on the areas surrounding the E Street, H Street, and Palomar Street trolley stations.

CLIMATE MITIGATION MEASURE #6: Smart Growth Around Trolley Stations	#	COMPONENTS	STATUS	PROGRESS
	1	Implementation of UCSP around E Street Trolley Station	In Progress	Staff is continuing to work with property owners and other interested parties towards project options for E Street parcels, and will apprise the City Council when viable prospects are identified.
	2	Initiate a H Street Corridor Study to better define redevelopment opportunities around the Trolley Station	On-Hold	Due to the dissolution of redevelopment agencies statewide, the H Street Corridor Study is on-hold indefinitely until alternative funding sources are identified.
	3	Develop a specific plan for the Palomar Gateway area, including the Palomar Trolley Station	In Progress	The environmental documents for the Palomar specific plan have been released for public review and a public hearing is scheduled for June 2013.
	4	Pursue trolley grade separation along the I-5 corridor	In Progress	In coordination with SANDAG and CalTrans, a study has been completed evaluating various grade separation options along all three Trolley Station areas.

Next Steps

The City will continue to pursue "Smart Growth" development surrounding Chula Vista's three Trolley Stations. In the next few months, the City will work with the EPA's Smart Growth technical assistance group to hold community workshops in Chula Vista to identify common barriers and opportunities for smart growth development. The workshop's results will help inform a broader study, being led by Chula Vista and the US Green Building Council (San Diego Chapter), to create new tools for local developers to implement sustainably designed and constructed projects.

MITIGATION MEASURE #7
TURF LAWN CONVERSION PROGRAM

Overview

Because water movement and treatment requires a large amount of energy (leading to GHG emissions), Measure #7 helps residents and businesses replace turf lawn areas with "WaterSmart" landscaping. Specifically, the program's components include (1) continuation and expansion of the NatureScape program to promote water conserving and nature-friendly landscaping, (2) coupling of residential and business turf lawn replacement with the solar and energy efficiency conversion program (Measure #5), (3) converting select municipal facilities to low water use plantings and irrigation, and (4) updating various municipal landscape regulations and guidelines to comply with new state requirements and further promote outdoor water use efficiency.

CLIMATE MITIGATION MEASURE #7: Turf Lawn Conversion	#	COMPONENTS	STATUS	PROGRESS
	1	Expand the NatureScape outreach program	Ongoing	Through the program, over 260 residents have attended "NatureScape-In-A-Box" workshops contributing to the City's 472 total certified "Backyard Wildlife Habitats."
	2	Include turf lawn replacement in *Home Upgrade, Carbon Downgrade* program (Measure #5)	In Progress	Through a formal RFP process, City staff is selecting a company to establish a Property-Assessed Clean Energy financing district for Chula Vista residents that can be used to also support water conservation efforts.
	3	Convert municipal facilities to low water use plantings & irrigation	Ongoing	The City is pursuing water-saving irrigation upgrades, such as rotating nozzles and "smart" controllers, at 42 locations.
	4	Update landscaping ordinances to emphasize water use efficiency	Completed	In 2010, a revised Landscape Water Conservation Ordinance was approved by City Council that creates a water budget for new or renovated landscapes and promotes water-efficient design.

Next Steps

City staff continues to pursue funding sources to support turf conversions. For municipal facilities, staff continues to develop a resource reinvestment fund, in which a portion of utility savings from energy and water retrofit projects can be reinvested in similar projects. In the community, a residential-focused Property Assessed Clean Energy (PACE) program to help finance home water retrofits will be presented to City Council for consideration by August.

CLIMATE ADAPTATION STRATEGIES

The following (11) strategies are designed to reduce Chula Vista's future risks and costs from expected climate change impacts such as sea level rise, more frequent wildfires and extreme heat days, and increased stress on energy and water supplies. The measures complement one another as well as state and federal climate adaptation initiatives.

ADAPTATION STRATEGY #1
COOL PAVING

Overview

To address climate change impacts related to the urban heat island effect (hotter ambient air temperatures), Strategy #1 is intended to incorporate reflective (or "cool paving") into all municipal projects (parking lots and streets) and new private parking lot projects over a specific size. Cool pavements refer to a range of established and emerging paving materials, which store less heat and have lower surface temperatures compared with conventional products. Specifically, the strategy's components include performing a comprehensive study to evaluate and test multiple reflective pavement technologies and developing options (based on the study's results) for incorporating cool pavement technologies into municipal standards.

CLIMATE ADAPTATION Strategy #1: Cool Paving	#	COMPONENTS	STATUS	PROGRESS
	1	Conduct a "cool paving" study to evaluate options	Completed	A final Cool Pavement Report has been completed by external consultants and presented to City Council.
	2	Develop formal standards for incorporating "cool paving" into municipal and development projects	In Progress	Dependent on the outcome of component #1, staff will present recommendations to City Council for consideration.

Next Steps

Chula Vista will continue to pursue possible funding sources for a cool paving demonstration site. In addition, the City will be piloting some modifications to existing pavement treatments to improve their "coolness" as recommended in the recently-completed Cool Pavement Report. Staff plans to return to City Council in 2015 with a formal policy for consideration.

ADAPTATION STRATEGY #2
SHADE TREES

Overview

To address climate change impacts related to the urban heat island effect and energy demand, Strategy #2 is intended to incorporate shade trees into all municipal improvement projects and all private development parking lot projects. Shade trees contributing to a robust urban forest act as a natural cooling mechanism for urban areas. In addition, canopy-forming trees help reduce storm water runoff, provide habitat for wildlife, and increase property values. Specifically, the strategy's components include (1) developing a shade tree policy for future City Council consideration, (2) amending the Municipal Landscape Manual to be consistent with the new policy, and (3) ensuring that the recently-updated Design Manual is consistent with the new policy.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #2: Shade Trees	1	Develop a formal shade tree policy	Completed	A new City Council policy promoting the use of shade trees along streets and within municipal and private parkling lots was approved in May 2012.
	2	Amend the Municipal Landscape Manual to be consistent with the new shade tree policy	In Progress	Based on the outcome of component #1, the Municipal Landscape Manual will be revised, as appropriate.
	3	Ensure that the Design Manual is consistent with the new shade tree policy	Completed	As part of the new Council-approved Design Manual, new development projects must incorporate shade trees and provide at least 50% shade coverage for paved areas.

Next Steps

Since a formal Shade Tree policy has now been adopted by City Council, staff expects to complete complementary updates to the Municipal Landscape Manual by spring 2014, as part of a more comprehensive revision process.

ADAPTATION STRATEGY #3
COOL ROOFS

Overview

Strategy #3 is intended to address climate change impacts related to the urban heat island effect and energy demand by promoting "cool roofs." Cool roofs, which are made of highly reflective and emissive material, can remain approximately 50 to 60°F cooler compared to traditional materials, thus helping to lower ambient temperatures inside and outside of buildings. This creates a more comfortable and healthy environment for building occupants and reduces energy use for air-conditioning. To accomplish Strategy #3, City staff will further evaluate cool roofing options and propose amendments to the municipal building codes for City Council consideration.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #3: Cool Roofs	1	Conduct a "cool roof" study to evaluate options	Completed	With the assistance of SDG&E, staff has completed a cost-benefit analysis of cool roof options, which was used to inform proposed building code revisions (component #2).
	2	Develop standards for incorporating "cool roofs" into building codes	Completed	Since City Council adopted the cool roof ordinance in March 2012, all new residential buildings in Climate Zone 10 have had to meet the new standard.

Next Steps

The City will continue to implement its new cool roof requirements under the City's broader green building standards. Local amendments to building codes expire when new California building codes take effect. As such, staff will evaluate the 2013 California Green Building Standards Code and propose local amendments for City Council consideration prior to the new statewide standards beginning in January 1, 2014.

ADAPTATION STRATEGY #4
LOCAL WATER SUPPLY & REUSE

Overview

Expected climate change impacts could limit imported water availability, increase utility costs for residents and businesses, and lead to higher demand for local water sources. As such, Strategy #4 is intended to educate the community about the benefits and appropriate uses of local water supplies and further integrate recycled water/onsite water reuse systems into new development. Specifically, components include (1) evaluating municipal building code options to incorporate single-source graywater "stub-outs" in new residential buildings and indoor recycled water in new commercial buildings, (2) developing an educational guide about proper graywater use, (3) creating an incentive (using external funding sources) to promote onsite water reuse, and (4) updating the City's water-related plans to reference and promote recycled water and onsite water reuse systems.

CLIMATE ADAPTATION Strategy #4: Local Water Supply & Reuse	#	COMPONENTS	STATUS	PROGRESS
	1	Develop standards for incorporating graywater stub-outs (residential) and indoor recycled water use (commercial)	Completed	New graywater codes were adopted by City Council at their May 7, 2013 meeting.
	2	Develop a graywater educational guide to help ensure proper use	In Progress	An educational guide is being created to promote the proper use of graywater and other onsite water reuse options (such as rain harvesting).
	3	Create an onsite water reuse incentive program	In Progress	The City is exploring opportunities to leverage the proposed residential PACE financing program to support graywater system installations.
	4	Update water-related municipal guidelines & plans to promote graywater	In Progress	Based on the outcome of component #1, municipal guidelines will be updated to be consistent with new graywater and other water reuse policies.

Next Steps

It is expected that a new Water Reuse Guide for homeowners will be completed by August, which will then be distributed by City staff and developers. Because indoor use of recycled water is a more complex issue, a draft standard for commercial buildings will be pursued after a stub-out standard is finalized.

ADAPTATION STRATEGY #5
STORM WATER POLLUTION PREVENTION & REUSE

Overview

Climate change will likely alter regional precipitation patterns, thus altering water runoff and sediment movement flows through local watersheds. Because of urbanization and its associated activities, pollutants are discharged with these flows into the City's storm drainage systems, creeks, rivers, San Diego Bay, and the ocean and reduce the beneficial uses of these water bodies for the Chula Vista community. Strategy #5 is intended to revise the City's storm water regulations and applicable municipal codes to efficiently manage higher concentrations of pollutants in urban runoff by minimizing water waste, using natural landscapes to help drain or reuse runoff, and by ensuring that irrigations systems are properly installed and maintained.

CLIMATE ADAPTATION Strategy #5: Storm Water Pollution Prevention & Reuse	#	COMPONENTS	STATUS	PROGRESS
	1	Develop revisions to the municipal code to prohibit excessive landscape over-irrigation resulting in urban runoff	Completed	Code revisions were adopted by City Council at their November 20, 2012 meeting.
	2	Encourage the beneficial reuse of pipe flushing water at construction sites	Completed	A brochure entitled "Guidelines for Water Conservation on Construction Sites" has been developed and is being distributed to developers and contractors working in Chula Vista.
	3	Develop incentives promoting Low Impact Development (LID) design concepts	In Progress	Non-monetary incentives to incorporate LID features into development projects are being considered through a collaboration between Land Development and Storm Water Management staff.
	4	Conduct a feasibility study for the beneficial reuse of dry weather flow sources	Delayed	A design has been created for the capture, treatment, and reuse of dry weather flow at Hilltop Park.

Next Steps

For component #4, staff will further develop the Hilltop Park Storm Water Reuse Project by investigating potential water right issues with the San Diego Regional Water Quality Control Board and by seeking funding to implement the project, if determined to be feasible.

ADAPTATION STRATEGIES #6 & #7
EDUCATION & WILDFIRES
EXTREME HEAT PLANS

Overview

The frequency and intensity of wildfires and extreme heat events is expected to increase due to local climate change impacts. These events could lead to greater public safety (loss of life and property) and health concerns (poor air quality and infectious disease transmittal). The strategies are designed to educate the general public and the business community about the impacts of climate change using existing City and community partner outreach mechanisms with a special emphasis on making homes more resilient to wildfires, incorporating poor air quality day notifications, and educating businesses about employee heat illness risks. In addition, extreme heat events will be added as a significant emergency to the City's public safety plans with a special emphasis on serving vulnerable populations and supporting a robust network of energy-secured "Cooling Centers."

CLIMATE ADAPTATION Strategy #6: Education & Wildfires Strategy #7: Extreme Heat Plans	#	COMPONENTS	STATUS	PROGRESS
	1	Expand community wildfire education	Ongoing	The City launched its new "Ready, Set, GO!" campaign, which is a comprehensive outreach program designed to promote wildifre prevention & preparedness.
	2	Revise emergency plans to include extreme heat events	In Progress	The City successfully revised its Emergency Operations Plan in December 2012 to include extreme weather events.
	3	Establish a procedure for notifying the community about poor air quality & extreme heat days	Completed	City staff now receives and forwards air quality notifications from the San Diego County Air Pollution Control District through the City's Nixle community messaging system.

Next Steps

City staff will continue to implement its community education and notification programs related to wildfires and extreme heat days. The City's Multi-Jurisdictional Hazard Mitigation Plan will be revised in 2015, as part of its regularly-scheduled update, to include extreme weather events.

ADAPTATION STRATEGY #8
OPEN SPACE MANAGEMENT

Overview

Chula Vista's open space areas include landscaped areas within developments, parks and recreation areas, and open space that has been set aside as a preserve for sensitive biological resources. In order to assess and reduce impacts associated with climate change on parks and open space and their associated ecosystems, Strategy #8 is intended to seek opportunities for the City to partner with the Resource Agencies, non-profit organizations, and/or adjacent public land managers to monitor and manage/restore ecosystems to ensure long-term habitat connectivity, species resilience, and community recreational opportunities.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #8: Open Space Management	1	Integrate climate change-related biological monitoring into Otay Ranch Preserve's Management Plan & Annual Work Plans	In Progress	Staff has begun to explore new partnership opportunities with the San Diego Foundation, environmental groups, and academic institutions to develop a necessary monitoring protocol.
	2	Update the Otay Valley Regional Park (OVRP) Concept Plan to incorporate climate-resilient design & educational guidelines	In Progress	Chula Vista will be including climate-resilient updates to the OVRP Concept Plan as part of the proposed FY14 Joint Staff Work Plan.
	3	Convert landscaped areas in open space districts to water-saving plants, mulch, & irrigation sytems	Ongoing	The Open Space Division has recently installed 15 new web-based, "smart" irrigation controllers with plans to install another 100 smart controllers by the end of year.

Next Steps

As funding is available, the City and its OVRP partners will implement the Concept Plan amendments, which would address climate change impacts and vulnerabilities.

ADAPTATION STRATEGY #9
WETLANDS PRESERVATION

Overview

Expected local climate change impacts include precipitation variability and sea level rise that will stress riparian wetlands and estuarine wetlands, respectively. As a result, the locations where the temperature, moisture, and other environmental conditions are suitable for wetlands and their associated species will shift. In order to reduce these impacts, Strategy #9 is intended to ensure that, when preserving or restoring coastal and riparian wetland, the City take steps to incorporate adequate upland or transition habitats to accommodate shifts in wetlands coverage and help ensure public access due to sea level rise and other climate change impacts. Specifically, components include (1) evaluating the feasibility of monitoring local wetlands species ranges and abundances in response to climate change impacts, (2) incorporate wetlands "migration" in habitat management and restoration design criteria in the future Bayfront Natural Resources Management Plan (NRMP), and (3) revise the OVRP Habitat Restoration Plan and Non-native Plant Removal Guidelines to include strategies for climate change adaptation issues.

	#	COMPONENTS	STATUS	PROGRESS
CLIMATE ADAPTATION Strategy #9: Wetlands Preservation	1	Evaluate potential to monitor local wetlands' biological health to assess climate change impacts	In Progress	Staff has begun to explore new partnership opportunities with the San Diego Foundation, environmental groups, and academic institutions to develop a necessary monitoring protocol.
	2	Incorporate climate change & sea level rise concepts in Bayfront NRMP	In Progress	Staff has begun preliminary work on the NRMP with the Bayfront Wildlife Advisory Group, who has identified climate change and sea level rise as critical components to the planning process.
	3	Amend OVRP Habitat Restoration & Non-Native Plant Removal Plans to promote climate resiliency	On-Hold	The City and its OVRP Partners will continue to seek funding necessary to proceed with the proposed OVRP plans' amendments.

Next Steps

Staff will continue to work with the Port of San Diego and the Bayfront Wildlife Advisory Group to include climate change-related issues into the NRMP development process. The City will also, as funding permits, continue working with its OVRP partners to amend the Plans and Guidelines used for trail planning to incorporate climate adaption strategies.

ADAPTATION STRATEGY #10
SEA LEVEL RISE & LAND DEVELOPMENT CODES

Overview

Over the next 40 years, sea level rise rates are expected to increase with local sea levels 12 to 18 inches higher than their current levels. Higher sea levels can result in increased erosion, more frequent flooding and property damage, loss of wetland habitats, and fewer waterfront public access options. As such, Strategy #10 directs the City to amend its land development codes and CEQA guidelines to incorporate climate change-related sea level rise into future development and municipal infrastructure projects' design and review. Specifically, the components include (1) revising the grading ordinance to consider a project's vulnerability to future sea level rise and flooding events, (2) modifying the Subdivision Manual to ensure that storm water/drainage infrastructure can address future sea level rise and flooding impacts, and (3) ensuring that environmental review and CEQA procedures are consistent with these changes.

CLIMATE ADAPTATION Strategy #10: Sea Level Rise & Land Development Codes	#	COMPONENTS	STATUS	PROGRESS
	1	Revise the grading ordinance to address increased rates of sea level rise	Completed	An ordinance revising Municipal Code 15.04 was adopted by City Council to address coastal development and sea level rise concerns.
	2	Modify Subdivision Manual to ensure proper drainage with higher sea levels	Completed	In March 2012, City Council approved revisions to the Subdivision Manual, which require 16" of sea level rise to be used for evaluating projects within tidally influenced areas.
	3	Ensure CEQA review procedures are consistent with new sea level-related land development guidelines	Completed	The new sea level rise requirements (components #1 & #2) have been incorporated into the environmental document preparation process.

Next Steps

At this time, the Governor's Office of Planning and Research (OPR) has not provided additional guidance on sea level rise issues under CEQA. However, OPR expects to begin updating the statewide CEQA Guidelines for sea level rise impacts in late 2013. As such, City staff will continue to monitor the development of statewide CEQA Guidelines to ensure that Chula Vista is consistent with any new requirements.

ADAPTATION STRATEGY #11
GREEN ECONOMY

Overview

Climate change impacts create new issues that local communities and, in particular, businesses need to address and prepare for in order to reduce future risks and costs. These issues can include higher insurance premiums due to greater flooding or wildfire risks, more expensive utility costs due to higher energy and water demand, and lower productivity due to more employee sick days from frequent extreme heat and poor air quality days. As such, Strategy #11 is designed to provide assistance and non-monetary incentives to help businesses manage climate change risks and to attract businesses that provide "green" products or services into Chula Vista. Specifically, the components include (1) revising the municipal purchasing policy to more robustly promote the procurement of "green" products and services, especially from local Chula Vista businesses, (2) revising existing business outreach programs to include recommendations on how they can reduce future climate change risks, and (3) continuing the recruitment and retention of "green" businesses and manufacturers in Chula Vista.

CLIMATE ADAPTATION Strategy #11: Green Economy	#	COMPONENTS	STATUS	PROGRESS
	1	Revise "green" procurement policy & process	In Progress	As part of the formal solicitiation process for a new office supply vendor, the City has included specifications for environmentally-friendly products.
	2	Modify business outreach programs to include information on reducing climate change risks	Completed	Both the CLEAN Business and FREBE checklists have been updated to include info on business-related climate adaptation strategies.
	3	Continue recruiting & retaining "green" businesses	Ongoing	Over 140 Chula Vista businesses have been recognized through the CLEAN Business program in partnership with the Chamber of Commerce and Third Ave Village Association.

Next Steps

By June, the City expects to select a new office supply vendor, which will improve the availability of "green" products and allow better tracking of their use. In addition, the Economic Development Division will be completing by August 2013 a business recruitment study, which includes an analysis of how to better attract and retain clean technology-oriented companies.